KONOVALOV, G.S.

USSR/Chemistry - Conferences

Card 1/1   Pub. 124 - 19/25

Authors   : Alekin, O. A., Memb. Corresp., Acad. of Sc., USSR; Datsko, V. G., Dr. of
             Chem. Sc.; and Konovalov, G. S., Cand. of Chem. Sc.
Title   : Important problems of hydrochemistry

Periodical : Vest. AN SSSR 25/12, 82-83, Dec 1955

Abstract   : Minutes are presented from the 19-th All-Union Hydrochemical Conference
             held in Novocherkask during May 8-13, 1955. The hydrochemical problems
             discussed and the resolutions adopted are listed.

Institution : .....

Submitted   : .....

ALEKIN, O.A.; DATSKO, V.G., doktor khimicheskikh nauk; KONOVALOV, G.S., kandidat khimicheskikh nauk.

Hydrochemistry of bodies of water in connection with hydraulic structures; conference in Novocherkassk. Vest.AN SSSR 26 no.8: 110-111 Ag '56.   (MIRA 9:9)

1.Chlen-korrespondent AN SSSR (for Alekin).
         (Hydraulic engineering) (Water--Pollution)

KONOVALOV, G.S.

Studying the minor elements in natural waters. Gidrokhim. mat. 26:
19-24 '57.   (MIRA 10:8)

1. Gidrokhimisheskiy institut Akademii nauk SSSR, Novocherkassk.
          (Water)   (Microchemistry)

The Development of the Hydrochemical Research Methods and their   3o-8-28/37
Tasks.

          particularly with respect to automation and express methods. The
          members of the conference displayed great interest in what was
          said by the representatives of the Bulgarian hydrometeorological
          Institute and of the Polish AN.

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Konovalov, O. S.   SOV/32-24-10-59/70

TITLE: A Pipette for Measuring Poisonous and Radioactive Solutions
                 (Pipetka dlya otbora yadovitykh i radioaktivnykh rastvorov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1288-1288 (USSR)

ABSTRACT: For taking and exactly measuring highly volatile and poisonous
                 solutions a pipette was devised by modifying the usual glass
                 pipette. At its upper end an opening was made which was covered
                 by a small rubber balloon. At a distance of 30-40 mm from the
                 upper end the pipette is formed to a small ball which prevents
                 the entrance of the liquid into the rubber balloon. A diagram
                 of this pipette is given. The sample-taking is carried out in
                 such a way that by closing the upper pipette opening (in the
                 usual way) and by means of the rubber balloon the liquid enters
                 the pipette. The fixation of the liquid meniscus at the grade
                 is also carried out in the usual way, by a slight increasing of
                 the pressure through the upper opening. After some training all
                 this can be done with one hand only. Otherwise the author re-
                 commends holding the pipette with one hand and operating it with
                 the other. There is 1 figure.

Card 1/2

SOV/32-24-10-59/70

A Pipette for Measuring Poisonous and Radioactive Solutions

ASSOCIATION: Gidrokhimicheskiy institut Akademii nauk SSSR (Hydrochemical Institute, AS USSR)

Card 2/2

KONOVALOV, G.S.; OGURTSOVA, O.S.

Fluorine in river waters. Gidrokhim.mat. 29:68-74 '59.
(MIRA 13:5)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, Novocherkassk.
(Rivers) (Fluorine)

KONOVALOV, G.S.; OGURTSOVA, O.S.

Boron concentration in ponds. Gidrokhim.mat. 28:83-90 '59.
(MIRA 12:9)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g.Novocherkassk.
(Boron) (Russia, Southern--Ponds) (Water--Composition)

KONOVALOV, G.S.; IVANOVA, A.A.; KOLESNIKOVA, T.Kh.; KUTSEVA, P.P.

Formation of some mineral waters in the region of the central
Caucasus. Gidrokhim.mat. 34:107-113 '61.   (MIRA 15:2)

1. Gidrokhimicheskiy institut AN SSSR, Novocherkassk.
            (Dauti Valley--Mineral waters)
            (Makhar Valley--Mineral waters)

KONOVALOV, G.S.; SHOKINA, O.N.

Molybdenum determination of natural waters. Gidrokhim. mat. 31:204-208
'61.
(MIRA 14:3)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.
(Water—Analysis) (Molybdenum)

KONOVALOV, G.S.

Study of the mineral components of natural waters. Gidro-
khim. mat. 37:109-113 '64.   (MIRA 18:4)

1. Gidrokhimicheskiy institut Glevnogo upravleniva gidrometeoro-
logicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.

KOVAL'TSOV, V.A.; KONOVALOV, G.S.

Automation of physicochemical methods of determining sulfate ions in water. Gidrokhim. mat. 37:118-124 '64.   (MIRA 18:4)

1. Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novccherkassk.

KONOVALOV, G.S.

Problems of the formation of the chemical composition of natural
waters and their significance in prospecting for metal deposits
by the hydrochemical method. Gidrokhim. mat. 38:121-126 '64.

(MIRA 18:4)

1. Gidrokhimicheskiy institut AN SSSR, Novocherkassk.

KONOVALOV, G.S.

Device for pressurized filtering. Zav. lab. 30 no.9:1149-1150 '64.
(MIRA 18:3)

1. Gidrokhimicheskiy institut AN SSSR.

L 7667-66   EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c)   IJP(c)   MJW/JD/HW

ACC NR: AP5025610   SOURCE CODE: UR/0135/65/000/010/0016/0018

AUTHOR: Terent'yev, I. M. (Engineer); Barutkin, F. Ye. (Engineer); Konovalov, G. S. (Engineer)

ORG: none

TITLE: Effect of welding conditions on the density of aluminum-alloy welds

SOURCE: Svarochnoye proizvodstvo, no. 10, 1965, 16-18

TOPIC TAGS: aluminum alloy, alloy welding, alloy weld, TIG welding, MIG welding, weld density, weld porosity/AMg6 alloy, ATsM alloy, VAD1 alloy

ABSTRACT: The effect of welding conditions on the porosity of AMg6, ATsM, and VD1 aluminum alloy welds in sections 2.5—7.0 mm thick has been studied. Alloy specimens were TIG welded with a one- or three-phase arc and filler wire or MIG welded. Welding current was varied from 51 to 295 amp and welding speed, from 5 to 35 m/hr. At low welding speeds (5—17 m/hr), weld porosity decreased with decreasing welding speed and with increasing specific heat input. At 20—29 m/hr, weld porosity decreased with increasing welding speed, but increased with increasing heat input. At welding speeds higher than 29 m/hr, increasing the welding speed at a constant heat input decreased weld proosity. Weld porosity depends primarily on the temperature of the melting pool and on arc pressure. Lower melting-pool temperatures and higher arc pressures reduce porosity. The hydrogen, which is the primary cause of weld

Card 1/2   * VAD1

UDC: 621.791.856.3.011:669.715

Card 2/2

ZENIN, A.A.; KONOVALOV, G.S.

Some processes taking place in the pollution of river water
by mine waters. Gidrokhim.mat. 36:56-63 '64.

(MIRA 18:11)

1. Gidrokhimicheskiy institut, Novocherkassk. Submitted
December 11, 1961.

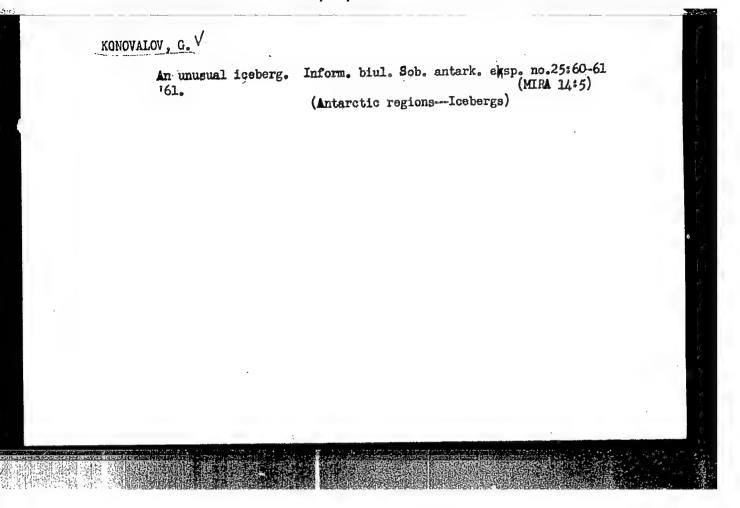KONOVALOV, G.S.; KUTSEVA, P.P.; KOLESNIKOVA, T.Kh.; IVANOVA, A.A.

Change in the chemical composition of natural water under the influence of sorption processes. Gidrokhim.mat. 36:117-124 '64.   (MIRA 18:11)

1. Gidrokhimicheskiy institut, Novocherkassk. Submitted December 15, 1961.

KONOVALOV, G.V.

Comparative morphological study of the cytopathogenic effect
of related viruses of street rabies and rabieslike disease
of polar animals. Dokl. AN SSSR 157 no. 2:451-453 Jl '64.
(MIRA 17:7)

1. Institut eksperimental'noy meditsiny AMN SSSR. Predstavleno
akademikom N.N.Anichkovym.

KONOVALOV, G.V.; KANTOROVICH, R.A.; BUZINOV, I.A.; RIUTOVA, V.P.

Experimental investigations into rage and rabies in polar foxes, natural hosts of the infection. II. An experimental morphological study of rabies in polar foxes. Acta virol. (Praha) [Eng] 9 no.3:235-239 My'65.

1. Department of Morbid Anatomy, Institute of Experimental Medicine, U.S.S.R. Academy of Medical Sciences, Leningrad; Institute of Virology, U.S.S.R. Academu of Medical Sciences, Moscow; and Scientific Research Institute of Fur Animal and Rabbit Husbandry, Ministry of Agriculture of the Russian S.F.S.R., Moscow.

KONOVALOV, G. V

An unusual iceberg. Inform. biul. Sob. antark. eksp. no.25:60-61
'61.
(MIRA 14:5)
(Antarctic regions---Icebergs)

S/169/62/000/004/056/103
D228/D302

AUTHOR: Konovalov, G. V.

TITLE: Main topographic types of Queen Maude Land

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 4, 1962, 57, ab-
               stract 4V339 (Inform. byul. Sov. antarkt. ekspeditsii,
               no. 29, 1961, 27-29)

TEXT: Five topographic types were discovered in the investigation
region, occupying an area of more than 300,000 km^2 between 1°W,
16°E, 73°S and the northerly rim of the shelf glaciers. 1) Shelf
glaciers which run into the sea in places, have a sloping and hilly
relief; this part of Antarctica is girdled by a wide belt (from 50
to 120 km). 2) The ice slope: this occupies a belt with a width
of 70 - 100 km and is characterized by a mean gradient of 2 - 3°,
nunatak outcrops, and the development of zones of fissuring. The
data of the northern and the southern boun-daries of the slope are
150 - 250 and 1300 - 1600 m respectively. 3) An oasis, in the form
of a weakly dissected hillocky area covered with moraine material,

Card 1/2

BARDIN, V.I., aspirant; DUNDO, O.P., mladshiy nauchnyy sotrudnik;
    KONOVALOV, G.V., mladshiy nauchnyy sotrudnik

Brief geomorphological characteristics of mountains in Queen
Maud Land. Inform.biul.Sov.antark.eksp. no.30:9-12 '61.
                                        (MIRA 14:12)

1. Moskovskiy gosudarstvennyy universitet (for Bardin).
2. Nauchno-issledovatel'skiy institut geologii Arktiki (for
Dundo). 3. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut (for Konovalov).
                (Queen Maud Land--Physical geography)

KONOVALOV, G.V., mladshiy nauchnyy sotrudnik

Geomorphology of the Schirmacher Ponds and surrounding area. Inform. biul.
Sov. antark. eksp. no.37:8-13 '62.   (MIRA 16:4)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.
                (Schirmacher Ponds--Geomorphology)

KONOVALOV, G.V.

Insects of Antarctica. Priroda 51 no.12:102 D '62.

(MIRA 15:12)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut, Leningrad.

(Antarctic regions—Insects)

KONOVALOV, G.V., mladshiy nauchnyy sotrudnik

Wind-eroded depressions in the Lazarev Shelf Ice. Inform.
biul. Sov. antark. eksp. no.39:9-12 '63.   (MIRA 16:6)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut.
                    (Lazarev Shelf Ice--Erosion)

KONOVALOV, G.V., mladshiy nauchnyy sotrudnik

Possible route to the inland Antarctic ice plateau from the Novolazarev Station. Inform.biul.Sov.antark.eksp. no.42:49-50 '63. (MIRA 17:1)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

BARKOV, N.I., mladshiy nauchnyy sotrudnik; KONOVALOV, G.V., mladshiy nauchnyy
sotrudnik

Nature of the melting of the surface of a glacier north of the Schir-
macher Oasis. Inform.Biul.Sov.antark.eksp. no.41:27-30 '63.
(MIRA 17:1)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

KONOVALOV, G.V., mladshiy nauchnyy sotrudnik

Observations of birds in Queen Maud Land. Inform. biul.
Sov. antark. eksp. no.35:45-48 '62.   (MIRA 16:11)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy
institut.

KONOVALOV, G.V. (Leningrad); SHULYATIN, O.G. (Leningrad)

Unique bird colony in Antarctica. Priroda 53 no.10:100-
101 '64.   (MIRA 17:11)

DUBROVIN, L.I., starshiy nauchnyy sotrudnik; KONOVALOV, G.V., mladshiy nauchnyy
sotrudnik

Dependence of snow accumulation on the topography in the region of
the Lazarev Station. Inform. biul. Sov. antark. eksp. no.45:29-32
'64.
(MIRA 18:1)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.

MAL'TSEV, V.N., kand. tekhn. nauk; KONOVALOV, G.V., mladshiy nauchnyy
sotrudnik

Passage to the Antarctic ice plateau from Molodezhnaya Station.
Inform. biul. Sov. antark. eksp. no.51:52-54 '65.
(MIRA 18:9)

1. Gidrograficheskoye predpriyatiye Ministerstva morskogo flota
SSSR (for Mal'tsev). 2. Arkticheskiy i antarkticheskiy nauchno-
issledovatel'skiy institut (for Konovalov).

KONOVALOV, G.V. (Leningrad); KHAY, L.M. (Leningrad)

Changes in the kidneys of rabbits in experimental allergic
polyneuritis; morphological study. Arkh. pat. no.11:65-70
'64.   (MIRA 18:11)

1. Laboratoriya patologii nervnoy sistemy (zav. - prof. Yu.M.
Zhabotinskiy) otdela patologicheskoy anatomii (zav. - prof.
N.N. Anichkov) i otdela mikrobiologii (zav. - chlen-korres-
pondent AMN SSSR prof. V.I. Ioffe) Instituta eksperimental'noy
meditsiny AMN SSSR.

KONOVALOV, I., doktor tekhn.nauk; PARFENOV, A.; BALANIN, V., kand.tekhn.-nauk; SHCHERBAKOVA, R., kand.tekhn.nauk; BAKHTIN, A.; BALIN, N.

Measures for preventing ice jams on the lesser and greater Northern Dvina. Rech. transp. 21 no.2:44-46 F '62.   (MIRA 15:3)

1. Predsedatel' Kotlasskogo ispolnitel'nogo komiteta deputatov trudyashchikhsya (for Parfenov). 2. Nachal'nik Kotlasskogo tekhnicheskogo uchastka Severnogo basseynovogo upravleniya puti (for Bakhtin). 3. Glavnyy inspektor Kotlasskogo tekhnicheskogo uchastka (for Balin).

(Northern Dvina River—Ice on rivers, lakes, etc.)

KONOVALOV, Ivan Antonovich; PUTS, Mikhail Ivanovich; KAPLUNOVSKIY,
Yevgeniy Petrovich [Kaplunovs'kyi, IE.P.]; TOCHENIY, P.A.
[Tochenyi, P.A.], red.; LIMANOVA, M.I.[Lymanova, M.I.],
tekhn. red.

[Give constant attention to the collective farm economy]
Povsiakdenno vnykaty v ekonomiku. Kharkiv, Kharkivs'ke
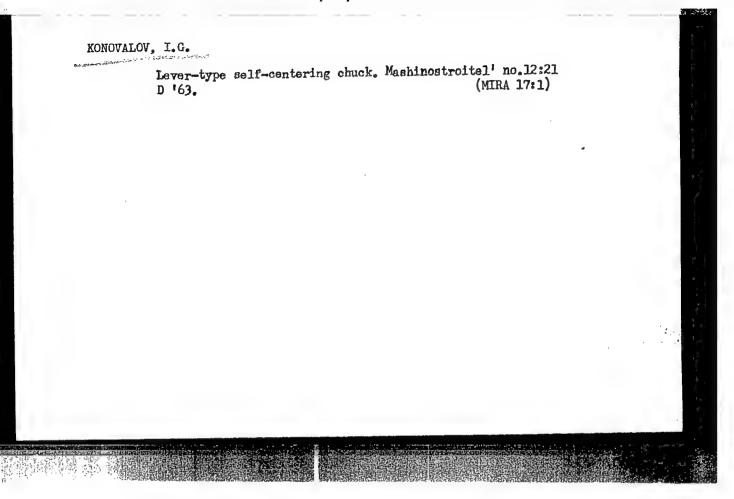knizhkove vyd-vo. 1962. 41 p.   (MIRA 16:6)

(Collective farms)

KONOVALOV, I. B.

Experiment at preparation and testing of the vaccine against fowl plague.

SO: TABCON Veterinariya; 23; 1; Jan 1946; Unclassified

KONOVALOV, I. D.

KONOVALOV, I. D. — "Investigation of Methods of Cleaning and Grading
Seed Bean Crops." Sub 23 May 52, Moscow Inst of Mechanization and Electri-
fication of Agriculture imeni V. M. Molotov. (Dissertation for the
Degree of Candidate in Technical Sciences).

SO: Vechernaya Moskva, January December 1952

KONOVALOV, I.G.

Lever-type self-centering chuck. Mashinostroitel' no.12:21
D '63.
(MIRA 17:1)

1. I. I. KONOVALOV

2. USSR (600)

4. Arithmetic — Study and Teaching

7. Implant practical habits in puils in arithmetic lessons. Nach. shkola 21
    no. 2. 1953.

9. Monthly List of Russian Accessions, Library of Congress, ___April___ 1953, Uncl.

KONOVALOV, I.I.

Nomogram for determining the needed value of the resistance rate of enclosures to the heat transmission. [Suggested by I.I. Konovalov]. Opyt rab. proekt. org. no.2:22-24 '57.   (MIRA 11:6)
(Heat—Transmission)

VOLYNSKIY, L.M., inzh.; KONOVALOV, I.I., inzh.

Operation of KU-80 waste-heat boilers. Trudy NTO chern. met. 20:298-
301 '60.
(MIRA 13:10)

1. Zavod "Azovstal'."
        (Boilers)   (Metallurgical plants)

KONOVALOV, I.I., kand.med.nauk (Yessentuki)

Some characteristics of the course of peptic ulcer in
patients after closed cranial trauma. Vrach. delo no.8:140-141
Ag '61.   (MIRA 15:3)
                         (PEPTIC ULCER)
                (SKULL--WOUNDS AND INJURIES)

26.2212
24.6740

AUTHORS: Safronov, B. G., Voytsenya, V. S., and Konovalov, I. I.

TITLE: Production of pure hydrogen plasma

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 6, 1962, 678 - 681

TEXT: The purification of hydrogen plasma by removing the heavy contami-
nating ions when the plasma cluster travels through the curved magnetic
field of a toroidal coil is investigated. The idea is that the non-uni-
formity of the field will cause charged particles of different sign to
drift in opposite directions perpendicular to the tore through which the
plasma moves. The drift velocity is proportional to the mass of the
particles and this makes it possible to eliminate the heavy ions which
will drift faster than the protons. If the velocity of the plasma is
properly chosen, the heavy ions will recombine at the tore walls whereas
the light protons can be drawn off at the tore end. In the authors'
experiments, the magnetic field in the tore was variable (0 - 500 oe).
The method proposed makes it possible to get a hydrogen plasma of spectral
purity. At densities of $\sim 10^{10}$ cm^{-3}, the process of purification can
Card 1/2

Card 2/2

ACCESSION NR: AT4025305   S/0000/63/000/000/0154/0162

AUTHORS: Konovalov, I. I.; Krupnik, L. I.; Onishchenko, I. N.;
Shulika, N. G.

TITLE: Use of mass spectrograph to obtain quantitative data on the
composition of plasmoids

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey. Mos-
cow, Gosatomizdat, 1963, 154-162

TOPIC TAGS: plasmoid, plasma source, mass spectrograph, ionized
plasma, plasma research, magnetic mirror

ABSTRACT: In order to prevent the polarization of a slow plasma
and other effects from distorting the results of mass-spectrographic
analysis of the plasma, an instrument is proposed in which the ion
beam is drawn out from the analyzed plasma and is simultaneously
accelerated to 20 keV in the gap of the mass spectrograph.   The ener-

Card 1/5

ACCESSION NR: AT4025305

gy spectrum of the plasma ions appears as a corresponding spread
over this constant level. The construction of the mass spectrograph
is described briefly. The ions were registered with thin-layer
emulsions which could be moved in and out of the mass spectrograph
without breaking the vacuum. Individual experiments were made to
study the density of the image produced on the emulsion as a function
of the number of H_1, H_2, H_3, He_4, C_{12}, N_{14}, and O_{16} positive ions
with energies from 10 to 20 keV. The apparatus used to calibrate
the photographic emulsions is described. Much space is devoted in
the article to the various factors influencing the emulsion density.
The method described was used to obtain the mass-spectroscopic and
energy characteristics of conical and coaxial plasma sources. It
is concluded that the described method can be used to extract a
great variety of information on the properties and behavior of the
plasma. Orig. art. has: 9 figures and 1 table.

ASSOCIATION: None

Card   2/5

KONOVALOV, I.I.

Effect of mineral water from the spring Lastochka on chronic gastritis and peptic ulcer. Klin. med., Moskva 30 no.8:72-76 Aug 1952. (CLML 23:2)

KONOVALOV, I.I., podpolkovnik med. sluzhby

Electrophoretic introduction of Vitamin B_1 into the nasal mucosa
in treating peptic ulcer. Voen. med. zhur. no.3:82 Mr '58.   (MIRA 12:7)
         (CYANOCOBALAMINE) (ELECTROPHORESIS)
              (PEPTIC ULCER)

17(SOV/177-58-9-35/51

AUTHOR: Konovalov, I.I., Lieutenant-Colonel of the Medical
              Corps

TITLE: Practice of Investigating Patients Suffering From
              Ulceration and Colitis With Utilization of the Verbal
              Experiment in Sanitaria.

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 9, pp 82-83 (USSR)

ABSTRACT: The author reports on verbal experiments performed on
              patients suffering from ulceration and colitis for de-
              termining the state of cortical processes. Of 40
              patients suffering from ulceration in the remittent
              period, 8 patients showed a normal sleep and steadiness
              of the cortical process. In 17 patients, weakness of
              the inhibitory and excitable processes was observed.
              In 14 patients, the excitable process predominated, and
              in 1 patient the inhibitory process. Of 100 persons
              suffering from chronic colitis, changes of the normal

Card 1/2

KONOVALOV, I.I. (Yessentuki)

Condition of the blood capillaries in some diseases as revealed by capillaroscopy. Vrach. delo no. 3:135-136 Mr '61. (MIRA 14:4)
(CAPILLARIES) (VISCERA—DISEASES)

KONOVALOV, I.I., kand.med.nauk

"Lastochka." Zdorov'e 7 no.6:30 Je '61.   (MIRA 14:7)
        (SIKHOTE-ALIN RANGE—MINERAL WATERS)

GRIGOROVSKIY, I.M., prof.; TALYBOVA, S.T., vrach (Baku); KONOVALOV, I.I.,
kand.med.nauk (Yessentuki); YARUSOVA, N.S., prof.; FATEYEVA, Ye.M.,
kand.med.nauk; GOLYAKHOVSKIY, V.Yu., kand.med.nauk

Health hints. Zdorov'e 7 no.8:30-31 Ag '61.   (MIRA 14:9)
(HYGIENE)

KONOVALOV, I.I., kand.med.nauk (Yessentuki)

Storehouse of mineral waters; the 100th anniversary of the Russian
Balneological Society. Priroda 52 no.8:101-102 Ag '63.

(MIRA 16:9)

(Caucasus, Northern--Mineral waters)

KONOVALOV, I.I.

Late results of sanatorium treatment of ulcerous diseases of the stomach and duodenum. Sbor. nauch. rab. vrach. san.-kur. uchr. profsoiuzov no.1:90-94 '64. (MIRA 18:10)

1. Yessentukskiy sanatoriy imeni I.P.Pavlova (glavnyy vrach A.Ye. Chvamaniya).

L 21706-66   EWT(1)/ETC(f)/EPF(n)-2/EWG(m)   IJP(c)   AT

ACC NR: AP6004882   SOURCE CODE: UR/0057/66/036/001/0085/0088

AUTHOR: Goncharenko,V.P.; Derepovskiy,N.T.; Konovalov,I.I.

ORG: none

TITLE: Investigation of the stand-by operation of a coaxial plasma gun

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 85-88

TOPIC TAGS: plasma gun, hydrogen plasma, plasma purity, mass spectrum

ABSTRACT: The authors have employed a Thomson mass spectrometer to investigate the composition of hydrogen plasma bursts from a coaxial plasma gun to which the firing potential was applied before the gas was admitted (stand-by operation). Stand-by operation of plasma guns has the advantage of simplicity, and the present investigation was undertaken to determine whether plasmas of adequate purity could be obtained from stand-by operated guns. The plasma gun consisted of two 25 cm long coaxial copper cylinders; the outer diameter of one cylinder was 3.2 cm and the inner diameter of the other was 7.9 cm. The inner cylinder had three slots at 17.5 cm from one end through which hydrogen was admitted by means of an electromagnetic valve operated by discharge of a 300 μF capacitor. The potential on the capacitor operating the valve was varied from 1.3 to 3.0 kV, and the gas pressure behind the valve was varied from 2 to 8 atm.; under these conditions the volume of gas admitted to the gun ranged from 0.1 to 3.0 cm^3. The plasma gun was powered by a 1 μF capacitor charged to 16 kV; the

Card   1/2   UDC: 533.9

L 21706-66
ACC NR: AP6004882   O

resonant period of the discharge circuit was 1.5 μsec. The discharge of the plasma
gun began from 190 to 300 μsec after operation of the valve, depending both on the
power applied to the valve and the gas pressure behind it. The velocities of the
plasma bursts ranged between 2×10^7 and 3×10^7 cm/sec and, as was shown by cutoff
of 8 mm microwaves, their charged particle densities exceeded 10^{13} cm^{-3}. The impurity
content of the plasma bursts decreased rapidly with increasing gas pressure behind the
valve and potential applied to the valve. With a gas pressure of 2 atm and a valve
potential of 1.8 kV the plasma was 48% hydrogen; with a gas pressure of 8 atm and a
valve potential of 2.4 kV the plasma was 92% hydrogen. The principal impurity was
carbon, but nitrogen, oxygen, fluorine, and copper were also observed in amounts up to
5% or more. The relative importance of carbon as an impurity increased with increas-
ing purity of the plasma: when the total impurity content was 52%, the carbon content
was 31%; when the total impurity content was only 8%, the carbon content was 6%. It
is concluded that rather pure hydrogen plasmas can be obtained by stand-by operation
of a coaxial plasma gun. Orig. art. has: 3 figures and 1 table.

SUB CODE: 20/   SUBM DATE: 17Nov64/   ORIG REF: 001/   OTH REF: 000

Card 2/2 dda

KONOVALOV, I. M.

4490. Flavka Bronzy Pod Shakovymv Fokrovom (Opyt Bryan. Parovozostroit. Zavoda), M., Mashgiz, 1954. 16 c. c. Graf. 20sm. (m-vo Transp. Mashinostroyeniya SSSR. Vsyesoyuz. Proyektno-tyekhnol. In-t pti. Otd. Tekhn. Infromatsii. Obmyen Tekhn. Optom. Vypl 78). 4.500 Ekz. Bespl.- Avt. Ukazany Na 3-y s.- (54-15035 Zh) 669.356

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

KONOVALOV, I.N.

25687

Opredeleniye koefitsiyenta I linii Szhatiya pri istechenii Zhidkosti iz Bokovogo
otverstiya v kanale. Trudy Leningr. In-Ta inzhenerov VOD transporta VYP 15. 1949.
s. 18-25.

SO: LETOPIS' No. 34

KONOVALOV, I.M.

25688

Opredeleniye szhatiya strui pri vkhode zhidkosti v trubu iz potoka. Trudy
Leningr In-Ta inzhenerov vod transporta, VYP 15, 1949, s. 26-32

SO: LETOPIS' No. 34

1. KONOVALOV, I.M., Dr.

2. USSR (600)

4. Hydrodynamics

7. Approximation theory on the role of bubbles in raising depth water toward the surface, Trudy LIIVT no. 18, 1951.

9. Monthly List of Russian Accessions, Library of Congress, ___APRIL___ 1953, Uncl.

KONOVALOV, I.M.; doktor tekhnicheskikh nauk, professor; YEMEL'YANOV, K.S.; ORLOV, P.N.; FEDOROV, V.V., redaktor; VOLCHOK, K.M., tekhnicheskiy redaktor.

[Principles of ice control in river navigation] Osnovy ledotekhniki rechnogo transporta. Leningrad, Izd-vo Ministerstva rechnogo flota SSSR, 1952. 261 p. [Microfilm]   (MLRA 7:12)
        (Inland navigation--Cold weather conditions)(Ice on
        rivers, lakes, etc.)

KONOVALOV, I.M.; PEREKHVAL'SKIY, V.S.

[Hydrodynamic effect of pushing ships] Gidrodinamicheskii effekt tolkaniia
sudov. Leningrad, Izd-vo Ministerstva morskogo i rechnogo flota SSSR,
1953. 51 p.   (MLRA 7:6)
        (Towing) (Ship resistance)

124-58-6-6815

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 77 (USSR)

AUTHOR: Konovalov, I.M.

TITLE: The Velocity Field Created by the Flow of a Liquid Past a Thin
Plate (Pole skorostey vokrug plastiny, obtekayemoy potokom)

PERIODICAL: Tr. Leningr. in-ta inzh. vodn. transp., 1955, Nr 22, p 3-10

ABSTRACT: In order to determine the velocity field in the vicinity of a
flat plate and its wake in a longitudinal flow, it is suggested that
the solution of the equation of motion be sought according to the
source method, reduced to the following form:

$$\frac{\partial (v^2)}{\partial (x^2)} = a^2 \frac{\partial^2 (v^2)}{\partial (y^2)}$$

(The reduction of the equation of motion to the heat-transfer type
of equation given above was suggested earlier by the author and
is based on the debatable assumption that the coefficient of
turbulent viscosity is proportional to the local mean velocity v
and the longitudinal coordinate x). A solution for the flow over

Card 1/2

KONOVALOV, I.M., professor, doktor tekhnicheskikh nauk.

Theory of turbulent boundary layers and its use in hydraulic en-
gineering and shipbuilding. Rech.transp.15 no.11:11-13 N '56.
(Turbulence)   (MLRA 10:2)
(Frictional resistance (Hydrodynamics))
(Boundary layer)

KONOVALOV, I.M., professor;   MYASNIKOV, M.V., inzhener.

Using solar radiation to lengthen navigation seasons. Rech.
transp. 15 no.1:13-18 Ja '56.   (MLRA 9:5)
    (Inland navigation) (Ice on rivers, lakes, etc.)
    (Solar radiation)

KONOVALOV, I.M.

3(4,7)

Vsesoyuz... Gidrologicheskiy S'ezd...

Trudy... III... Union Hydrological Conference... Leningrad, Gidrometeoizdat, 1959. 470 p. Errata slip inserted. 2,000 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Resp. Ed.: V.A. Uryvayev; Ed.: V.S. Protopopov; Tech. Ed.: M.I. Braynina.

PURPOSE: This work is intended for meteorologists, hydrologists, and hydrophysicists, particularly those engaged in the study of snow and ice and evaporation processes.

COVERAGE: This book contains papers on hydrophysics which were presented and discussed at the Third All-Union Hydrological Conference in Leningrad, October 1957. The conference published 10 volumes on various aspects of hydrology of which this is number 3. The editorial board in charge of the series include: V.A. Uryvayev (Chairman), O.A. Alekin, Ye.V. Blinyak (deceased), O.M. Borsuk, M.A. Velikanov, L.K. Davydov, A.P. Domanitskiy, G.P. Kalinin, S.N. Kritskiy, B.I. Kudelin, L.P. Manoim, M.P. Menkel, B.P. Orlov, I.V. Popov, A.K. Proskuryakov, D.L. Sokolovskiy, O.A. Spengler, A.I. Chebotarev, and S.K. Cherkavskiy. This volume is divided into 2 sections; the first contains reports from the subsection for the study of evaporation processes, and the second contains reports from the snow and ice subsection. References accompany each article.

KONOVALOV, I.M., prof.; BALANIN, V.V., dots.; BORODKIN, B.S., kand.
tekhn.nauk; SHCHERBAKOVA, R.I., kand.tekhn.nauk

Extending navigation on inland waters and possibilities of
year-round operation. Rech.transp. 18 no.9:33-37 S '59.
(MIRA 13:2)

(Ice on rivers, lakes, etc.) (Ice-breaking vessels)

KONOVALOV, I.M., doktor tekhn.nauk, prof.; BALANIN, V.V., kand.tekhn.nauk,
            dotsent

    Formation of river beds. Trudy LIIVT no.26:3-20 '59. (MIRA 14:9)
                            (Rivers)

KONOVALOV, I.M., doktor tekhn.nauk, prof.; RYAZANOV, G.A., kand.fiziko-
matematicheskikh nauk, dotsent; BOROZNA, D.I., inzh.

Applying the theory of a turbulent boundary layer and the electro-
hydrodynamic analogy method to a study of flow around ships and
their interaction with the propellers. Trudy LIIVT no.26:82-89
'59.   (MIRA 14:9)
(Ships--Hydrodynamics)

AUTHOR: Konovalov, I.M.;

TITLE: Distribution of energy and temperature in turbulent jets

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 8, 1961, 34, abstract 8B210
            ("Tr. Leningr. in-ta vodn. transp.", 1960, no. 7, 32 - 40)

TEXT: The formula proposed by the author is derived for tangent stress τ
in a turbulent jet. In derivation the equation of motion of a small jet of li-
quid with variable discharge is used. This formula looks as follows:

$$\tau = - \rho a^2 x \frac{\partial(v^2)}{\partial n}$$

where ρ is density of liquid, a is a constant coefficient (equal to 0.04-0.08),
x is axial coordinate of the jet, v is velocity, $\partial/\partial n$ is derivative with respect
to the normal. In using the new formula for τ, an equation of energy distribu-
tion in a plane turbulent jet is derived with allowance for the own weight of

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Card 2/2

L 15739-63   EPR/EPA(b)/EWT(1)/BDS   AFFTC/ASD   Pd-4/Ps-4   WW
ACCESSION NR: AR3002679   S/0124/63/000/005/B115/B115

SOURCE: Rzh. Mekhanika, Abs. 5B703
                                                                    65

AUTHOR: Konovalov, I.M.; Balanin, V. V.; Seleznev, V. M.

TITLE: New theory of turbulent jets and some of its applications in hydrotechnics

CITED SOURCE: Tr. Leningr. in-ta vodn. transp., vyp. 26, 1962, 24-34

TOPIC TAGS: Reynolds equation, turbulence, turbulent exchange, friction,
hydraulics, turbulent flow, pulsation, widening, expansion, method, calculation

TRANSLATION: The Reynolds equation, as is known, represents a non-closed system,
for besides the parameters of averaged motion it contains the supplementary
pulsation terms, on which the two fold correlation of velocities, called the
turbulent friction is based. For the completion of this system of equations,
various formulas relating pulsation terms with the parameters of the averaged
current are introduced. For example, the Trubchikov, Prandtl (new and old),
and Taylor formulas are known. All these familiar formulas are based on defi-
nite physical representations of the mechanism of turbulent exchange.

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L 15739-63
ACCESSION NR: AR3002679

    The authors of the "new theory of turbulent jets" do not allude to
any physical concept at all, and introduce into the system of equations a "new"
link between friction and the parameters of the averaged motion and thus avoid
the analogous, but more usual formula, which has already long figured in the
theory of jets as the formula of Reichardt, (see Abramovich, G.N., Theory of Tur-
bulent Jets M. Fizmathiz, 1960, 715 pages) which attained significant develop-
ment in the work of L. A. Vulis and his collaborators.
    The authors consider the problems of the propagation of plane
parallel turbulent jets of incompressible liquid in a stationary medium and in
current jets; of the velocity field during longitudinal flow arour a flat
plate; and of the expansion of an infinite series of plane turbulent jets aris-
ing in the surrounding liquid. A similar analysis is made of the velocity field
during the propagation of the turbulent jet in the flat channel with sudden
widening. Comparisons are made with the experiments of B.A. Fidman, and A.N.
Rakhmanov. It is noted that satisfactory agreement between the calculated and
the experimental results is attained due to arbitrary variation of the constant
coefficient which is contained in the calculation relations (0.02 for free plane

Card   2/3

Card 3/3

KONOVALOV, I.M., doktor tekhn.nauk, prof.; BALANIN, V.V., kand.tekhn.nauk; SELEZNEV, V.M., kand.tekhn.nauk

Plotting the field of speeds in the region of a submerged hydraulic jump. Gidr.stroi. 32 no.7:40-43 Jl '62.   (MIRA 15:7)
(Hydraulics)

BALANIN, Vasiliy Vasil'yevich, kand. tekhn. nauk, dots.; BORODKIN, Boris Solomonovich, kand. tekhn. nauk, dots.; MELKONYAN, Georgiy Ivanovich, kand. tekhn. nauk, dots.; KONOVALOV, I.M., prof., red.; LOBANOV, Ye.M., red.

[Utilizing the heat of deep waters to maintain ice-free water areas] Ispol'zovanie tepla glubinnykh vod vodoemov dlia podderzhaniia nezamerzaiushchikh akvatorii. Moskva, Transport, 1964. 271 p.   (MIRA 18:2)

1. Leningradskiy institut vodnogo transporta (for Balanin, Borodkin, Melkonyan).

KONOVALOV, I. M.

KONOVALOV, I. M.

"Slide-Flow of Soft Ground,"
Dokl. AN Azerb. SSR, Vol 9, No 9, pp 531-537, 1953, (Azerbaydzhani resume)

The author studies a slide complex which has developed on one of
the slopes of the southeastern Caucasus. It consists of two cirques
and two slide terraces situated at various hypsometric levels. The
author draws the conclusion that the upper and lower slide complexes
are an alternation of three morphological zones which reflect the
dynamics of a ground mass according to its humidification and transfer
from the solid and stiff plastic phase to the plastic, and from the
latter to the liquefied phase. (RZhGeol, No 2, 1955)

SO: Sum, No 606, 5Aug 55

KONOVALOV, I.M.

Ancient and long-standing landslides in southeastern Caucasus.
Dokl. AN Azerb.SSR 10 no.5:333-341 '54.   (MIRA 8:4)

1. Azerbaydzhanskaya gidrogeologicheskaya ekspeditsiya. Pred-
stavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhanskoy SSR
M.A.Kashkayem.
        (Caucasus—Landslides)

KONOVALOV, I.M.

Direction of soil creep movements. Dokl.AN Azerb.SSR 11 no.6:
389-394 '55. (MLRA 9:6)

1.Predstavleno deystvitel'nym chlenom AN Azerbaydzhanskoy SSR
M.A.Kashkayem.
(Caucasus--Earth movements)

15-57-7-10004

Water Saturation on Sliding Slopes (Cont.)

of water saturation, as exemplified in the northern part of the
southeastern Caucasus and the Apsheron Peninsula. The following
are the basic factors used in the classification: 1) depth of
occurrence of the aquifer; 2) hydrostatic head in the aquifer
within the area of the slope; 3) persistence of the aquifer,
4) hydrochemical type and degree of mineralization of the water
seeping through the sliding slope; 5) lithic character of the
rocks containing the subsurface water and of the surface on
which the sliding occurs; and 6) sources of the water seeping
through the sliding slopes.

V. S. Kovalevskiy

Card 2/2

KONOVALOV, I.M.

VAIDOV, V.M.; KONOVALOV, I.M.

The tectonically isolated position of Talysh. Dokl. AN Azerb. SSR
14 no.3:213-217 '58.   (MIRA 11:4)

1. Institut geografii AN AzerSSR. Predstavleno akademikom AN AzerSSR
M.-A. Kashkayem.
                (Talysh Mountains—Geology, Structural)

KONOVALOV, I.M.; VAIDOV, V.M.

Features of variation in the total mineralization of water and in the
ion composition in the direction of flow of underground water. Dokl.
AN Azerb.SSR 16 no.7:669-674 '60.   (MIRA 13:9)

1. Institut pochvovedeniya i agrokhimii AN AzerSSR. Predstavleno akad.
   AN AzerSSR V.R. Volobuyevym.
                  (Lenkoran Lowland--Water, Underground)

KONOVALOV, I.M., dr., tekhn. nauk, prof.; CHEKRENEV, A.I., dr. tekhn. nauk, prof.; BALANIN, V.V., kand. tekhn. nauk, dotsent; ANTONOV, B.S., kand. tekhn. nauk

Methods of prolonging the navigation period on inland waterways. Trudy LIVT no.46:30-37   '63   (MIRA 17:7)

KONOVALOV, I.M.; STOROZHENKO, S.A.

Genesis of Babaytaudor-type granite syenites. Uzb.geol.zhur. 8
no.3:66-71 '64.   (MIRA 18:12)

1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete
Ministrov Uzbekskoy SSR. Submitted May 8, 1963.

GUROV, S.A., inzhener;   KONOVALOV, I.M., inzhener.

Efficient grooving of the stand of shingling rolls. Stal' 15 no.2:
181-183 F '55.   (MIRA 8:5)

1. Stalinskiy metallurgicheskiy savod.
        (Rolling mill machinery)

GUROV, S.A.; KONOVALOV, I.M.

Special features of rolling thick plate. Stal' 16 no.1:69-70 '56.
(MLRA 9:5)

1. Stalinskiy metallurgicheskiy zavod.
(Rolling (Metalwork))(Sheet steel)

KONOVALOV, I.M.

SOV/137-58-8-16861

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 91 (USSR)

AUTHORS: Gurov, S.A., Konovalov, I.M.

TITLE: Improvement in Groovings with the Object of Reducing the
Number of Passes (Usovershenstvovaniye kalibrovok s tsel'yu
sokrashcheniya kolichestva prokhodov)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp.
pravl., 1957, Vol 2, pp 119-126

ABSTRACT: The number of passes on a blooming mill (B) rolling a
200x200 mm bloom from a 3.4-t ingot of 575x575 mm maximum
cross section has been reduced from 25 to 15. The possibility
of doing this was established as a result of analysis of the load
borne by the main motor on each pass. Inasmuch as rolling (R)
is done on the B and the 710 mill with a single heating, the in-
crease in the output of the B caused a bottleneck at the finishing
line of the 710 mill. To eliminate this, the number of passes on
this mill was cut in half by replacing box passes by diamond
passes making possible greater drafts. As a result of this sub-
stitution, the quality of the R improved and it became easier
for the rolls to bite the metal. Analysis of the functioning of

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SOV/137-58-8-16861

Improvement in Groovings (cont.)   .

the 400 mill showed that the motor had unused capacity and that the major
elements of the mill had excess strength. The grooving of the 400 mill was
re-examined with the idea of increasing the draft. Specifically, under the
former R system a 35-mm square was rolled on the roughing line in 5
passes, while by the new system it is done in 3; under the old system 35,
38, and 40-mm squares were rolled in 6 passes on the finishing stand, while
on the new it is done in 4. The grooving changes that were made resulted in
a 15% increase in the output of the 400 mill in the R of squares. The number
of passes in the R of 25x60, 73x10-13, and 89x13-mm, and other strip was
cut in half on the 350 mill.

S.G.

1. Rolling mills—Performance

Card 2/2

AUTHORS: Revenko, I.F. and Konovalov, I.M.

TITLE: Improving Roll-pass Design of Section Mills (Usovershenstvovaniye kalibrovok sortovykh stanov)

ABSTRACT: At the Stalino Metallurgical Works, a re-examination has been made of roll-pass design for rolling a number of profiles on all rolling mills. The authors describe some of the changes, which aimed at reducing the labour of the operators, improving product quality and making load distribution over the working stands more uniform. They first deal with the 400 mill, which is in two lines with 550-mm dia. rolls in the reducing stand and with 400-mm dia. rolls in the three-stand finishing train. The new (1957) GOST for spring steel with its reduced tolerances made it necessary to abandon the former scheme (Figure 1a) in favour of one (Figure 1b) in which the 107X55 mm product of the reducing stand is rolled with the same number of passes but involving edge passes. This mill rolls spring strip from 55S2 and 60S2 steels; its productivity is said to have been unchanged through the adoption of the new scheme. The authors next consider the 350-mill with a reducing stand with 500 mm dia. rolls and a four-stand finishing train. Here

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two passes have been eliminated (Figure 2) in rolling Nr 24 hexagonal bars enabling rolling to be completed at a higher temperature. For rolling 22-mm squares, the system has been changed (Figure 3) from diamond-square to diamond-diamond, reducing the number of passes from seven to five. A similar type of change was made for rolling 26- and 27-mm dia. rounds and 21 x 26, 30 x 16, 30 x 18 and 35 x 18 strip. Mill productivity rose by 15-18% for the hexagonal and square and by 10-15% for the rounds. Finally, the authors describe roll-pass design changes on the 250 mill, which is in three lines: the reducing stand has 500-mm dia. rolls, the middle line has two stands with 350 mm dia. rolls and the finishing line has five stands. The roll-pass design is such that all passes in the reducing and middle lines are constant for all profiles. The rolling of 8 x 16 mm strip of 55S2 steel has been adopted at the mill with a square, diamond, diamond, square with concave

Card 2/3

faces and smooth barrel as the successive passes (Figure 4) giving successful results.

There are 4 figures.

ASSOCIATION: Stalinskiy metallurgicheskiy zavod
(Stalinok Metallurgical Works)

Card 3/3   1. Rolling mills - Performance   2. Rolling mills - Design
            3. Rolling mills - Production

25.1000

75581
SOV/130-59-10-13/20

AUTHORS: Konovalov, I. M., Chaban, Z. K.

TITLE: Design of Round-Finishing Roll Pass

PERIODICAL: Metallurg, 1959,   Nr 10, pp 26-27 (USSR)

ABSTRACT: The authors believe that the maximum wear which
              occurs in the part of the roll pass, under an angle
              of 45° to the horizontal, is caused by maximum re-
              duction in this part of the roll pass. In order to
              make the roll pass approach a round shape after wear,
              the authors suggest designing a roll pass with a
              minimum diameter under a 45° angle in relation to
              the horizontal. For the design of a round-finishing
              roll pass, horizontal and vertical axes AD and BC
              (see Fig. 2)and lines Ne and Mk under an angle of
              45° to AD and BC are drawn. Arches with radius
              $R = R_{max} + x$ forming the roll pass profile are drawn
              as follows: De from point O_1, MA from point O_2,
Card 1/4   AN from point O_3, and DK from point O_4. Assuming

Design of Round-Finishing Roll Pass

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that the maximum radius of the circle equals

$$R_{max} = \frac{d + \Delta m}{2} \cdot 1.013,$$

where $+ \Delta m$ = plus tolerance. The minimum radius of the circle would then be

$$R_{min} = \frac{d - \Delta m'}{2} \cdot 1.013,$$

where $\Delta m'$ = minus tolerance, d = nominal diameter of the circle. Coordinates x and y of points O_1, O_2, O_3, and O_4 are equal. They are determined on the assumption that Ne and MK equal minimum diameter of the circle in the hot state. From Fig. 2,

$$R_{min} = \sqrt{y^2 + x^2} = R_{max} + x \text{ or } R_{min} + 1.41x = R_{max} + x.$$ Denote $R_{max} - R_{min} = \Delta s$, then $x = y = 2.43 \Delta s$.

Arches Me and Nk are drawn with radius R from points n and n_1, respectively. In accordance

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Design of Round-Finishing Roll Pass

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with the above, the authors deduce value R (see Fig. 2 attached) from equation $(R - b)^2 = R^2$,

$b = R_{min} - R_{min} \cdot 0.7071 + 0.2924 \Delta s = R_{max} \cdot$

$\cdot 0.2929$, $a = 0.7071 \cdot R_{min}$. In solving equation

$(R-b)^2 = R^2$, value $\dfrac{0.8535 \Delta s^2}{R^2}$ is too small to

be considered so that $R = R_{max} - 1.7 \Delta s$. The authors assume that the height of the roll pass is $h_k = D_{max} - 1.4142 \Delta s$. Experimental rolling of round shapes at Stalino Metallurgical Plant (Stalin-skiy metallurgicheskiy zavod) showed the expediency of the new design, dimensional accuracy improved and roll pass life increased. There are 2 figures.

Card 3/4

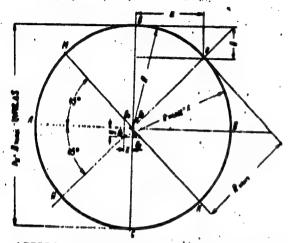Design of Round-Finishing Roll Pass

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SOV/130-59-10-13/20

Fig. 2. Design of Round-Finishing Roll Pass.

ASSOCIATION: Stalino Metallurgical Plant (Stalinskiy metallurgicheskiy zavod)

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S/137/61/000/007/038/072
A060/A101

AUTHOR: Konovalov, I. M.

TITLE: Efficient grooving of section mills

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 19, abstract 7D148
            ("Tr. Konferentsii: Tekhn. progress v tekhnol. prokatn. proiz-va".
            Sverdlovsk, Metallurgizdat, 1960, 373-380)

TEXT: Investigations are carried out to establish the spread under rolling
of an oval in a square, rhombus in a square, and a square in smooth rolls. On
the basis of the investigations carried out, for rolling with a minimal number of
passes and strip spread $B/h = 1 - 2$, a system of rhombic-rhombic passes is used
and instead of a ribbed preplanishing pass a square with squashed-in edges was
used. This system was applied for rolling strips with dimensions: 8 x 16,
21 x 26, 20 x 30, 20 x 38, 18 x 35 mm, and others. Depth calculations for the
depth of grooves of conjugated passes, rolling diameters of three-high stands,
graphs of spread distribution of circular passes of various diameters, and the
recommended shape for constructing a planishing circular pass are given.

[Abstracter's note: Complete translation]   A. Bulanov

Card 1/1

S/133/62/000/012/001/012
A054/A127

AUTHORS: Yefimov, V.A., Candidate of Technical Sciences, Legenchuk, V.I.,
            Sivtsov, G.V., Konovalov, I.M., Bykov, G.D., - Engineers

TITLE: Top-pouring steel under slag

PERIODICAL: Stal', no. 12, 1962, 1,074 - 1,078

TEXT: To improve the quality of the surface of top-poured low-carbon steel
ingots, the processes taking place at the contact-surfaces of metal, slag and in-
got-mold have been investigated at the Cherepovetskiy metallurgicheskiy zavod
(Cherepovetsk Metallurgical Plant). The quality of the ingot surface is known to
depend on the size of the liquid metal meniscus forming at the place of contact
between mold wall and metal. The radius of this convex meniscus depends on the
surface stresses at the boundary between metal and liquid slag. It was found
that addition of synthetic slags on the mold bottom considerably improved the con-
ditions of skin formation and, consequently, also the quality of the metal sur-
face. For, if the slowly rising metal is covered by a low-smelting slag layer,
the latter will protect the metal against oxidation and cooling, it will adsorb

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S/133/62/000/012/001/012
A054/A127

Top-pouring steel under slag

the high-smelting reduction products and prevent the creasing of the skin. The liquid slag penetrates between the metal meniscus and the mold wall and forms a heat-insulating layer. This will cause the skin of the metal to cool down more slowly and will reduce the shrinkage stresses. The slag composition must ensure a heat-insulating layer of optimum thickness between mold wall and ingot. The greater the meniscus radius, the thicker the slag crust will be. The optimum surface tension of the slag must be determined experimentally. The required viscosity of the synthetic slag can be ensured by addition of liquefiers. Moistening of the mold wall tends to thicken the solidifying slag layer. It is advisable to coat the mold wall with a substance of high surface tension, such as aqueous graphite suspension or lime milk. The method has been applied in the top-pouring of Ст.3сп (St.3sp), 3т (3t) and 19 Г (19G) low-carbon grades. The following slag compositions were tested:

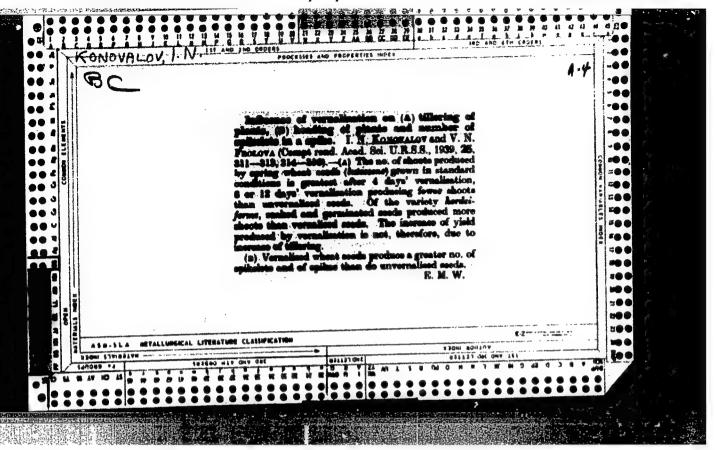| Components, %	A	B	C	D	E
cupola furnace slag	-	100	90	95	93
fluorite	24	-	10	5	7
Grain size, mm	1-0	3-0	3-0	5-2	3-0

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Top-pouring steel under slag

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fissures in the latter was reduced by a factor of 4, that of scales by a factor of 6. The labor consumption for cleaning the 13.6-ton slabs poured under slag decreased by a factor of more than 2. The article contains formulae for the calculation of the forces involved in the formation of the meniscus and the slag layer. There are 4 figures.

ASSOCIATION: Institut ispol'zovaniya gaza AN USSR (Institute of Gas-Utilization of the Academy of Sciences of the Ukrainskaya SSR) and Cherepovet-skiy metallurgicheskiy zavod (Cherepovetsk Metallurgical Plant)

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KONOVALOV, I. N.

BC

A.4

Influence of vernalisation on (A) tillering of plants, (B) branching of plants and number of spikelets in a spike. I. N. KONOVALOV and V. N. FROLOVA (Compt. rend. Acad. Sci. U.R.S.S., 1939, 25, 311—312; 314—316).—(A) The no. of shoots produced by spring wheat seeds (lutescens) grown in standard conditions is greatest after 4 days' vernalisation, 8 or 12 days' vernalisation producing fewer shoots than unvernalised seeds. Of the variety hordeiforme, soaked and germinated seeds produced more shoots than vernalised seeds. The increase of yield produced by vernalisation is not, therefore, due to increase of tillering.

(B) Vernalised wheat seeds produce a greater no. of spikelets and of spikes than do unvernalised seeds.

E. M. W.

KONOVALOV, I-N.

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KONOVALOV, Dr. I. N.

USSR/Academy of Sciences   Feb 1948

"Review of 'A Great Reformer of Nature - Ivan Vladi-
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Konovalov, 2 p

"Priroda" Vol XXXVII, No 2

An 80 page pamphlet written in popular style which
describes achievements of Soviet Scientist Michurin.

69T1

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SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

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Kaden, N. N., Aleksandrov, V. G. and <u>Konovalov, I. N.</u> (Reviews and Bibliography) "The Morphological Essence of the Fruits of Rosaceae and Corylus and the Nature of the Fruit of some Rosaceae". P. 143

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Aug. 5, 1950

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